

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1-25(canceled)

26(new). A method of demodulating a multi-level signal comprising:

- (a) identifying at least one signal constellation vector proximate to said multilevel signal;
- (b) comparing respective measures of reliability of at least two bits of said constellation vector of said demodulated multilevel signal, said respective measures of reliability being log likelihood ratios and being limited to a predetermined range;
- (c) assigning a hard decision value to at least one bit associated with a greater reliability; and
- (d) assigning a soft decision value to at least one bit associated with a lesser reliability.

27(new) The method of claim 26 where each of said respective log likelihood ratios is limited to a range of values less than the possible number of bits that could be assigned soft values.

28(new) The method of claim 26 where said predetermined range is calculated using a simulation of said method on a communication system.